

## New Literature

### Analisis del ciclo de vida – Life Cycle Assessment in Spanish

**Authors:** Pere Fullana, Rita Puig

**Publisher:** Rubes Editorial, S.L., Sicilia 236 bis, 2<sup>o</sup> 2<sup>a</sup>, E-08013 Barcelona, Spain  
Tel. +31-93-231-12-00; eMail: rubes.editorial@bcn.servicom.es

To the knowledge of the reviewer this book is the first introduction to LCA (in Spanish "ACV") to appear in Spanish. The aims and target groups of the book are not stated explicitly but for a newcomer to the field it will offer a well-balanced presentation of its major aspects, the methodology and many of the applications through its 143 pages. Furthermore, it provides what must become the authoritative translation of all the central LCA terms into Spanish.

The book opens with a brief introduction to Life Cycle Assessment and the concept of life cycle thinking. The origins and historical development of LCA methodology and fields of applications over the last 30 years are reviewed, and the position and possibilities of LCA in relation to the other tools in the toolbox of environmental management is explained.

In the second chapter, the methodology of LCA is presented over 38 pages. The methodology follows current SETAC and ISO practice, and all major phases and components are introduced briefly and well illustrated by a case study on a perfume developed specifically (the case study) for this book. At the end of the chapter, a paragraph on simplification of LCA is also provided. Given the extent of this chapter the introduction to the methodology has to be short. However, it is followed by references to large parts of the relevant background literature for the benefit of the reader with needs for a more thorough understanding of elements of the Life Cycle Assessment methodology. Indeed, the chapter contains an impressive list of references to other published work comprising several works that were unknown to the reviewer.

Following the review of the general methodology, chapter three introduces the major actors in the use of Life Cycle Assessment and the way in which they can and presently do use it with separate paragraphs on administration, industry and consumers/NGOs. This chapter reveals that the authors are very well oriented in the current activities of the LCA community, be it SETAC or ISO activities or the publication of new LCA work in Europe, and the number of references of LCA applications covered by the book is impressive. Apart from the frequently discussed work on different forms of packaging, the paragraph on LCA applications by an

administration cites a somewhat queer application by the North American Defense Authorities. According to a reference encountered on the Internet, this body uses LCA to improve the environmental performance of the bombs and other arms that they purchase. In this application of LCA the use stage of the product, however, is omitted from the inventory! The latter half of chapter three presents examples on the use of LCA in some of the major industrial sectors (agroindustry, electronics, automobiles, construction and chemistry) and an introduction is given to some of the technologies and activities that in some form are included in the life cycle of most products and materials, e.g. packaging, transportation processes, generation of energy and disposal processes.

Chapter four provides a status of Life Cycle Assessment in late 1996. Standardization activities in ISO and CEN are described and the major international organizations within the Life Cycle Assessment community are presented. Particularly for Spanish readers eight pages are devoted to the status of activities in Spain and the chapter contains addresses and contact persons for both international organizations and Spanish research groups.

The book concludes with a chapter containing brief reviews of software and methodology, and references to central spots in the Internet – very helpful for the reader with interest in continued and more profound activity in Life Cycle Assessment.

With the growing focus on products in environmental policies within Europe, this book must meet a need among Spanish LCA practitioners and users of LCA results in industry and administration. It could be hoped that the book will also help expand the knowledge about the possibilities in environmental assessment of products in some of the rapidly growing, newly industrialized South American countries where the lack of introductory literature in Spanish may have hampered the awareness of this relatively new tool among the potential users.

Dr. Michael Hauschild  
Department of Manufacturing Engineering  
Technical University of Denmark